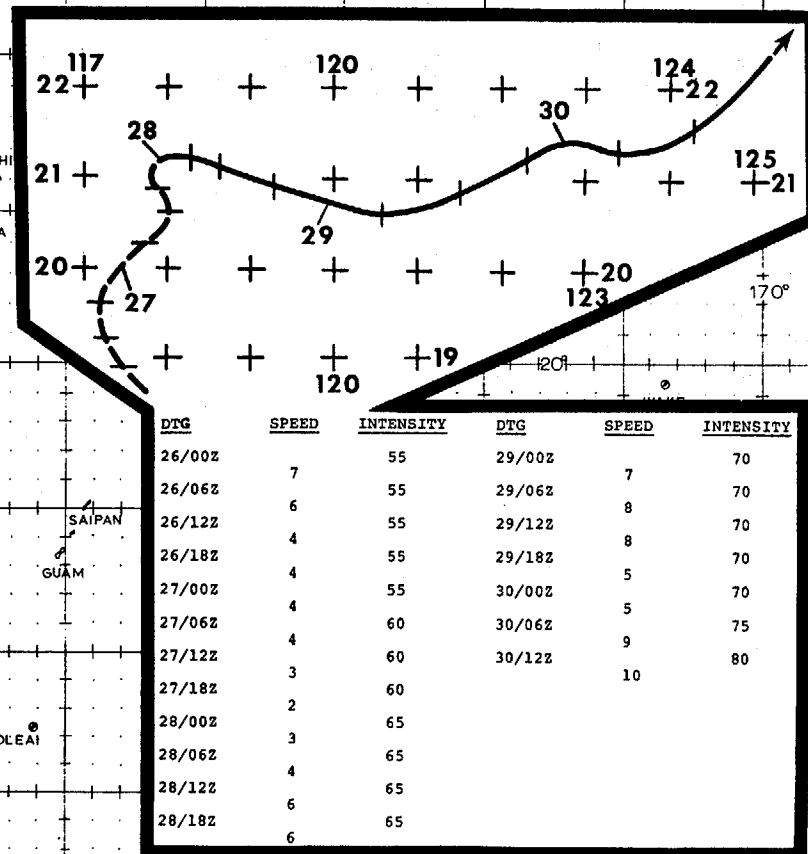
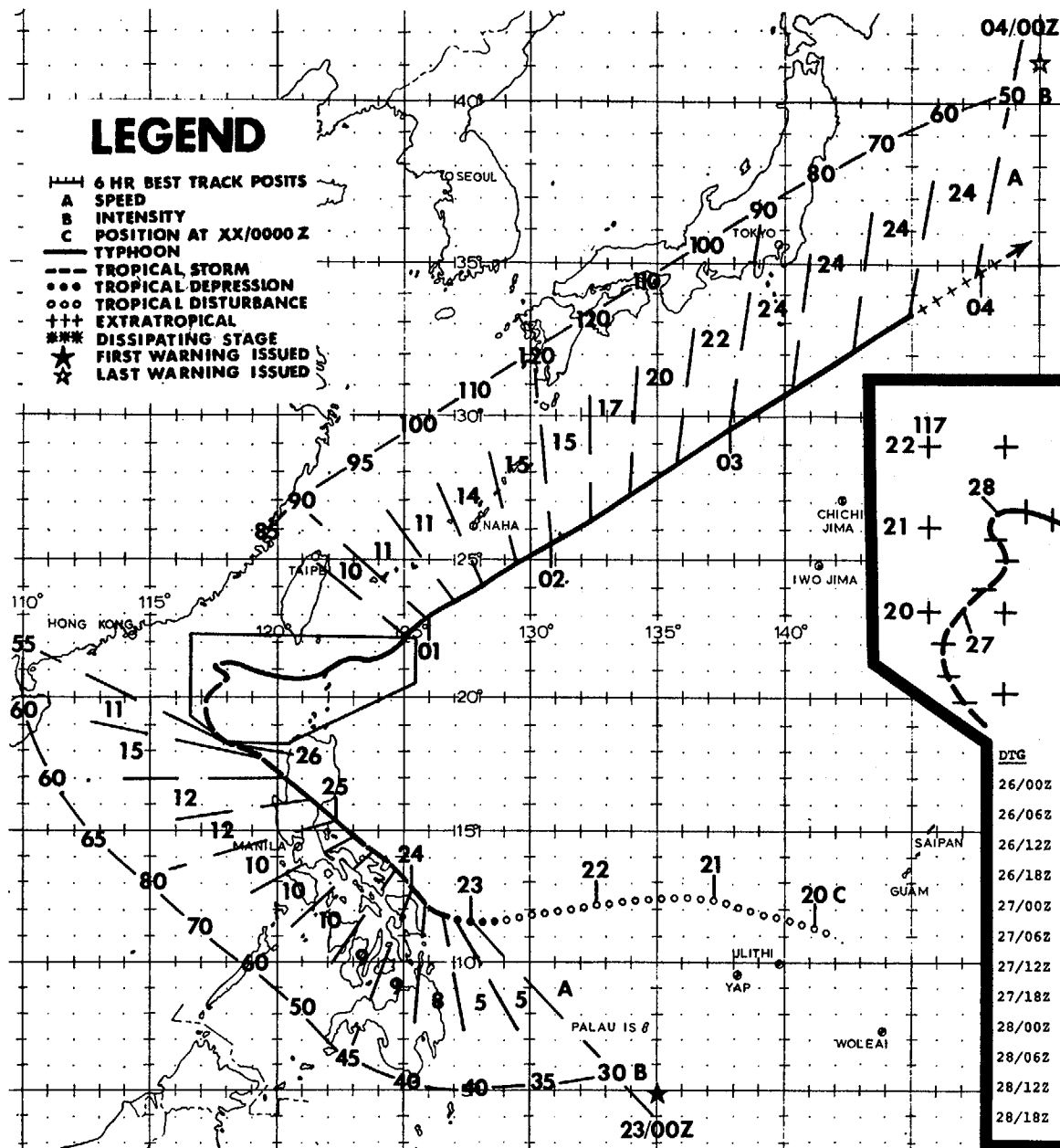


LEGEND

- 6 HR BEST TRACK POSITS
- A SPEED
- B INTENSITY
- C POSITION AT XX/0000 Z
- TYPHOON
- TROPICAL STORM
- ... TROPICAL DEPRESSION
- ooo TROPICAL DISTURBANCE
- +++ EXTRATROPICAL
- *** DISSIPATING STAGE
- ★ FIRST WARNING ISSUED
- ★ LAST WARNING ISSUED

TYPHOON RUBY
BEST TRACK TC- 07
23 JUN - 04 JUL 1976
MAX SFC WIND 120 KTS
MINIMUM SLP 934 MBS

30



RUBY

The month of June was characterized by a persistent monsoon trough which was the breeding ground for numerous tropical disturbances. Ruby, the 5th typhoon of the season, was detected in this trough as an area of heavy thunderstorm activity located some 250 nm southwest of Guam. This region of convective activity was monitored for 3 days before undergoing significant intensification.

On the morning of the 23rd satellite data indicated that the disturbance had organized into a tropical depression located some 450 nm southeast of Manila, moving westward. Based on this information the first warning was issued on the 23rd at 0000Z. Reconnaissance aircraft at 1205Z indicated that TD 07 had attained tropical storm intensity; flight level winds of 70 kt and a central pressure of 987 mb were reported. Radar reports from Catanduanes Island (98446) further indicated that Tropical Storm Ruby was moving northwestward in response to weak steering south of the mid-tropospheric subtropical ridge.

At 2100Z on 23rd reconnaissance aircraft reported further development; Ruby had intensified, with an eye and surface winds in excess of 70 kt. This rapid intensification was in response to the westward movement of an intense cold-core low in the Tropical Upper Tropospheric Trough (TUTT) which increased the upper level outflow and destabilized the tropospheric column, enhancing convection.

On the afternoon of the 25th Ruby, still tracking northwestward, began its passage over central Luzon crossing the eastern coast 10 nm south of Cape Ildefonso with winds of 80 kt. Official reports of damage resulting from Ruby's passage were unavailable. However, Pacific Stars and Stripes did report in their July 4th issue that 16 persons in the province of Benguet were killed as a result of mudslides triggered by heavy rains.

Passage over the Philippines weakened Ruby into a tropical storm. Further weakening was experienced in the South China Sea when the storm's vertical organization became sheared by strong upper tropospheric north-easterly flow emanating from the massive Asian upper level anticyclone.

On the morning of the 26th, Ruby began to move northward, and passed 35 nm east of Pratas Island on the 27th at 0600Z. Thirty-five knot winds and a sea level pressure of 985 mb were observed. By the morning of the 28th satellite data indicated that the vertical organization had become realigned and that Ruby had reintensified (Fig. 4-19). This had resulted from the westward regression of an upper tropospheric short wave trough to a position slightly northwest of Ruby's anticyclone. This blocked the earlier upper level shearing flow and enhanced outflow. Shortly after realignment a slow, eastward progression of the upper tropospheric trough steered Ruby to the east toward Typhoon Sally. It appears that any Fujiwara interaction between Ruby and Sally was either

very small or nonexistent.

As Ruby traveled eastward through the Bashi Channel, radar reports from Kao-hsiung indicated eastward movement and intensification (Fig. 4-20). Reconnaissance aircraft at 1600Z on July 1st recorded the lowest pressure, 934 mb, and indicated that Typhoon Ruby was moving toward the northeast.

Ruby maintained typhoon intensity until the night of the 3rd when it again moved into a hostile shearing environment. Meteorological satellite data at 2312Z on the 3rd indicated that Ruby had finally become extratropical after its 10 day trek.

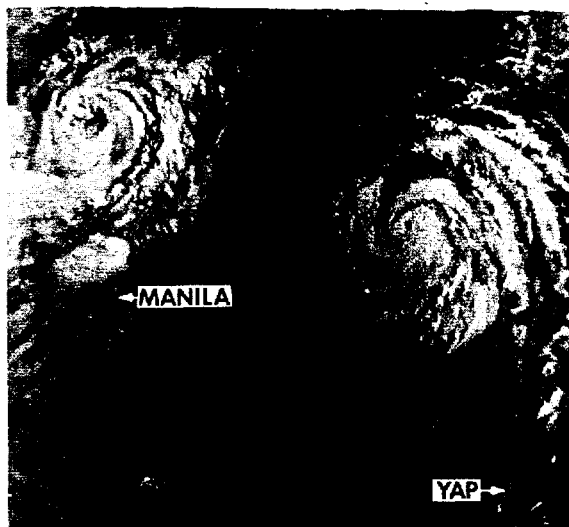


FIGURE 4-19. Ruby (left) near typhoon intensity 430 nm north-northwest of Manila, 27 June 1976, 2223Z. Typhoon Sally is some 800 nm to the east-southeast. [DMSP imagery]

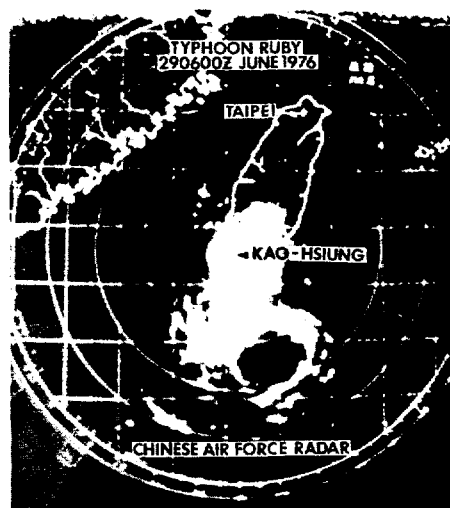


FIGURE 4-20. Radar presentation of Typhoon Ruby at 70 kt intensity 125 nm south-southeast of Kao-hsiung, Taiwan, 29 June 1976, 0600Z. [Picture courtesy of Central Weather Bureau, Taipei, Taiwan, Republic of China.]